AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 13, line 5 and ending on page 14, line 2, with the following amended paragraph:

FIG. 5 is a more detailed flow diagram 500 showing an illustrative non-uniform segment normalization method according to the invention. In one embodiment, a detector detects the spectrum as amplitudes as a function of wavelength from the spectrometer. In a further embodiment, an analog-to-digital converter (A/D converter) converts the amplitude of the spectrum at each discrete wavelength to a digital value. The A/D converter provides output at a desired precision, such as 10-bits, 12-bits, 14-bits or even higher precision. As indicated at step 510, the digitized amplitudes so obtaincd are recorded in a computer memory or machine-readable record as a table of amplitudes recorded at selected discrete wavelengths. The computer 202 divides the spectrum into a plurality of portions, or segments of the spectrum, selected to span a range comprising one or more wavelengths. Each segment is bounded by an upper wavelength and a lower wavelength. As indicated at step 520, the computer 202 selects a subset of the plurality of segments for the normalization process. Alternatively, the user may select the subset of segments for normalization. The segments or ranges do not have to be uniform in width in wavelength space, nor do the segments need to be contiguous with each other or evenly separated in wavelength space. However, the segments may have uniform width, be contiguous and/or be cvenly separated in wavelength space.[.] The width of a wavelength range is defined as the absolute magnitude of a difference between an upper wavelength and a lower wavelength. Since the ranges and separations can be non-uniform in wavelength space, the method is referred to herein as the "non-uniform segment" normalization method.